

State of Washington

1999 Combined Actuarial Valuation

Public Employees Retirement System - *December 31, 1999*

Law Enforcement Officers and Fire Fighters Retirement System - *December 31, 1999*

Washington State Patrol Retirement System - *December 31, 1999*

Teachers Retirement System - *June 30, 1999*



WASHINGTON STATE LEGISLATURE
Office of the State Actuary

Gerald B. Allard

**Report of the Combined
Actuarial Valuation
As of December 31, 1999**

This report presents the actuarial valuation results of Washington state's four main public employee retirement systems: the Public Employees Retirement System (PERS); the Teachers Retirement System (TRS); the Law Enforcement Officers and Fire Fighters Retirement System (LEOFF); and the Washington State Patrol Retirement System (WSP). It was prepared in accordance with actuarial practices and procedures recognized by the American Academy of Actuaries and meets statutory requirements set forth in Chapter 41.45 RCW.

These valuations reflect the benefits and liabilities of the systems as contained in Chapters 41.26; 41.32; 41.40; and 43.43 RCW. Data shows the status of the PERS, LEOFF and WSP systems as of December 31, 1999. Data for TRS shows the system's status as of June 30, 1999.

Assumptions of investment return, inflation, and salary used in these valuations were adopted by the Pension Funding Council. Demographic assumptions were developed by the Office of the State Actuary. These assumptions are reasonable and represent expected future experience.

Member and beneficiary data was provided by the Department of Retirement Systems. Comparisons were made of the current to prior year's data. A series of additional data checks were performed. From these analysis it was determined the data is sufficient and reliable for the purposes of the valuations. Unaudited asset information was provided by the State Investment Board. The assets for TRS were audited.

Legislation enacted after the 1999 valuation date have been included in the contribution rates and are described in Section VII.

Respectfully submitted,

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Section I

Contribution Rates

Contribution Rates

Valuation Contribution Rates

	Plan 1		Plan 2/3	
	1998	1999	1998	1999
PERS				
Member	6.00%	6.00%	1.49%	1.70%
Employer (<i>Normal Cost</i>)	1.49%	1.70%	1.49%	1.70%
Employer (<i>Plan 1 UAAL</i>)	2.00%	1.51%	2.00%	1.51%
Total Employer	3.49%	3.21%	3.49%	3.21%
TRS				
Member	6.00%	6.00%	*1.71%	*2.15%
Employer (<i>Normal Cost</i>)	2.14%	2.59%	2.14%	2.59%
Employer (<i>Plan 1 UAAL</i>)	3.67%	2.79%	3.67%	2.79%
Total Employer	5.81%	5.38%	5.81%	5.38%
LEOFF				
Member	6.00%	0.00%	5.36%	5.77%
Employer	6.00%	0.00%	3.22%	3.46%
State (<i>Normal Cost</i>)	0.00%	0.00%	2.14%	2.31%
State (<i>Plan 1 UAAL</i>)	0.00%	0.00%	0.00%	0.00%
Total State	0.00%	0.00%	2.14%	2.31%
WSP				
Member	7.00%	7.00%	N/A	N/A
Employer (<i>State</i>)	0.00%	0.00%	N/A	N/A

*Applies to TRS 2 Only.

Contribution rates resulting from the 1998 and 1999 actuarial valuations are expressed as a percentage of salary.

The 1999 contribution rates reflect legislation enacted during the 2000 legislative session.

Development of Employer/State Contribution Rates

	PERS		TRS		WSP
	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 1</i>	<i>Plan 2/3</i>	
Total Normal Cost	7.70%	3.40%	8.59%	*4.74%	19.70 %
Less Employee Contribution	6.00%	1.70%	6.00%	*2.15%	7.00 %
Employer Contribution	1.70%	1.70%	2.59%	2.59%	12.70 %
Cost to Amortize UAAL	1.51%	1.51%	2.79%	2.79%	(20.98)%
Total Employer Contribution Rate	3.21%	3.21%	5.38%	5.38%	0.00 %

*Applies to TRS 2 Only.

	LEOFF	
	<i>Plan 1</i>	<i>Plan 2</i>
Total Normal Cost	0.00%	11.54%
Less Employee Contribution	0.00%	5.77%
Less Employer Contribution	0.00%	3.46%
State Contribution	0.00%	2.31%
Cost to Amortize UAAL	0.00%	0.00%
Total State Contribution Rate	0.00%	2.31%

Actuarial Valuation Methods

Plan 2 and Plan 3

The Aggregate Actuarial Cost Method was used to calculate Plan 2 and Plan 3 contribution rates. The unfunded actuarial present value of fully projected liability is amortized over the future payroll of the active group. The entire contribution is considered normal cost and no unfunded actuarial accrued liability exists.

Plan 1

The actuarial cost method used to develop contribution rates for the Plan 1 systems is a variation of the Entry Age Cost Method. The normal cost of each type of benefit provided by the Plan 1 systems is determined by the contribution rate which, if paid from the average new member's entry date to retirement, would fully prefund that benefit. Since all new entrants became members of Plan 2 or Plan 3, we have used the aggregate Plan 2/3 normal cost in Plan 1.

LEOFF Plan 1 benefits are fully funded, so no State contribution is required.

Contributions toward the PERS and TRS Plan 1 unfunded actuarial accrued liabilities were developed as the level percent of expected future payroll needed to amortize the liability by June 30, 2024. Extraordinary investment gains as of July 1, 1997 allowed a shortening of the amortization period to April 30, 2022. Extraordinary investment gains as of July 1, 1999 further shortened the amortization period to December 31, 2016. Future payroll includes current members in both Plan 1, Plan 2 and Plan 3, as well as new hires. The PERS employer costs are the same for Plan 1 and Plan 2 members, using this method. Similarly, the TRS employer costs are the same for Plan 1, Plan 2 and Plan 3.

Washington State Patrol

The actuarial cost method used to develop contribution rates is the Entry Age Cost Method. Contributions toward the unfunded actuarial accrued liability were developed as the level percent of expected future payroll needed to amortize the liability by June 30, 2024.

Adoption of contribution rates

The "1998 Valuation Contribution Rates" were the basis for new lower contribution rates charged as of May 1, 2000. As of September 1, 2000 the contribution rates charged were increased to reflect the laws passed during the 2000 legislative session.

The "1999 Valuation Contribution Rates" are scheduled to be charged as of July 1, 2001.

Development of Plan 2 and Plan 3 Contribution Rates

<i>(Dollars in millions)</i>	<u>PERS 2</u>	<u>TRS 2/3</u>	<u>LEOFF 2</u>
Actuarial Present Value of Fully Projected Benefits	\$ 12,527	\$ 3,392	\$ 3,022
Valuation Assets	11,371	2,908	2,163
Unfunded Actuarial Present Value of Fully Projected Benefits	\$ 1,156	\$ 485	\$ 859
Employer Gain-sharing Responsibility	N/A	96	N/A
Contributions to July 1, 2001	332	142	136
	\$ 824	\$ 247	\$ 723
Present Value of Projected Salaries to Current Members (PVS)			
Plan 2 PVS	51,117	3,668	8,220
Plan 3 PVS	N/A	17,669	N/A
2 x Plan 2 PVS + Plan 3 PVS	N/A	25,006	N/A
Employee Contribution Rate	1.70%	**2.15%	5.77%
Employer Contribution Rate	1.70%	2.59%	3.46%
State Contribution Rate	N/A	N/A	2.31%
Total Contribution Rate*	3.40%	**4.74%	11.54%

Note: Totals may not agree due to rounding.

*PERS 2 rate includes 1.78% for the Laws of 2000; TRS 2 rate includes 2.32% for the Laws of 2000;

LEOFF 2 rate includes 2.74% for the Laws of 2000.

**Applies to TRS 2 Only.

Development of Contribution Rate to Amortize the Unfunded Actuarial Accrued Liability (UAAL)

<i>(Dollars in Millions)</i>	PERS 1	TRS 1	LEOFF 1	WSP
Actuarial Present Value of Fully Projected Benefits	\$ 12,494	\$ 10,382	\$ 4,262	\$ 545
Valuation Assets	10,456	8,696	5,150	662
Actuarial Present Value of Future Normal Costs	449	423	6	95
UAAL	1,589	1,263	(894)	(213)
Expected UAAL Contributions to July 1, 2001	218	245	0	0
Remaining UAAL	\$ 1,371	\$ 1,017	\$ (894)	\$ (213)
Present Value of Projected Salaries beyond July 1, 2001	\$ 88,809	\$ 35,372	\$ 15,129	\$ 1,013
Contribution Rate to Amortize the remaining UAAL*	1.51%	2.79%	(5.91)%	(20.98)%

Note: Totals may not agree due to rounding

*PERS 1 rate includes 0.03% reduction for the Laws of 2000; TRS 1 rate includes 0.09% reduction for the Laws of 2000; LEOFF 1 and WSP are fully funded so no UAAL contributions are required.

Section II

Actuarial Determinations

Section II -

Actuarial Determinations

Actuarial Present Value of Fully Projected Benefits

(Dollars in millions)	PERS			LEOFF			WSP
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total	
ACTIVE MEMBERS:							
Retirement	\$ 5,321	\$ 10,172	\$ 15,492	\$ 573	\$ 2,814	\$ 3,387	\$ 302
Vesting	32	427	459	2	54	57	5
Death Annuity	42	142	185	16	14	30	6
Disability	48	196	244	353	16	369	0
Uniform COLA	473	—	473	—	—	—	—
Return of Contributions:							
Termination	27	413	440	0	33	33	0
Death	43	207	250	4	52	57	1
Total Active	\$ 5,985	\$ 11,558	\$ 17,543	\$ 948	\$ 2,983	\$ 3,932	\$ 315
INACTIVE MEMBERS:							
Terminated	\$ 176	\$ 522	\$ 698	\$ 17	\$ 27	\$ 44	\$ 2
Service Retirement	4,982	403	5,385	1,039	12	1,051	215
Disability	104	29	132	1,938	1	1,938	1
Survivor	312	15	327	320	0	320	11
Uniform COLA	854	—	854	—	—	—	—
Total Inactive	\$ 6,428	\$ 969	\$ 7,397	\$ 3,314	\$ 39	\$ 3,353	\$ 230
Sub-Total	\$ 12,413	\$ 12,527	\$ 24,939	\$ 4,262	\$ 3,022	\$ 7,284	\$ 545
Gain-sharing	81	—	81	—	—	—	—
Valuation Total	\$ 12,494	\$ 12,527	\$ 25,020	\$ 4,262	\$ 3,022	\$ 7,284	\$ 545
Laws of 2000	—	808	808	—	88	88	—
1999 Grand Total	\$ 12,494	\$ 13,335	\$ 25,828	\$ 4,262	\$ 3,110	\$ 7,372	\$ 545
1998 Grand Total	\$ 12,283	\$ 11,379	\$ 23,662	\$ 4,063	\$ 2,712	\$ 6,775	\$ 507

Note: Totals may not agree due to rounding.

Actuarial Present Value of Fully Projected Benefits - *Continued*

(Dollars in millions)	TRS		
	<i>Plan 1</i>	<i>Plan 2/3</i>	<i>Total</i>
ACTIVE MEMBERS:			
Retirement	\$ 4,873	\$ 2,939	\$ 7,813
Vesting	53	126	179
Death Annuity	35	45	80
Disability	24	17	42
Uniform COLA	388	—	388
Return of Contributions:			
Termination	10	14	24
Death	33	16	50
Total Active	\$ 5,417	\$ 3,158	\$ 8,575
INACTIVE MEMBERS:			
Terminated	\$ 191	\$ 109	\$ 300
Service Retirement	3,784	43	3,827
Disability	90	3	92
Survivor	155	1	157
Uniform COLA	678	—	678
Total Inactive	\$ 4,898	\$ 156	\$ 5,054
Sub-Total	\$ 10,314	\$ 3,314	\$ 13,629
Gain-sharing	68	78	146
Valuation Total	\$ 10,382	\$ 3,392	\$ 13,774
Laws of 2000	—	269	269
1999 Grand Total	\$ 10,382	\$ 3,661	\$ 14,043
1998 Grand Total	\$ 10,388	\$ 3,272	\$ 13,659

Note: Totals may not agree due to rounding.

Actuarial Present Value of Credited Projected Benefits

(Dollars in millions)	PERS			LEOFF			WSP
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total	
ACTIVE MEMBERS:							
Retirement	\$ 4,271	\$ 4,065	\$ 8,336	\$ 493	\$ 1,174	\$ 1,668	\$ 180
Vesting	23	215	238	2	28	30	3
Death Annuity	34	61	95	13	7	20	3
Disability	39	98	137	310	8	318	0
Uniform COLA	379	—	379	—	—	—	—
Return of Contributions:							
Termination	19	203	222	0	14	14	0
Death	34	95	129	4	24	28	1
Total Active	\$ 4,800	\$ 4,737	\$ 9,537	\$ 823	\$ 1,256	\$ 2,078	\$ 187
INACTIVE MEMBERS:							
Terminated	\$ 176	\$ 522	\$ 698	\$ 17	\$ 27	\$ 44	\$ 2
Service Retirement	4,982	403	5,385	1,039	12	1,051	215
Disability	104	29	132	1,938	1	1,938	1
Survivor	312	15	327	320	0	320	11
Uniform COLA	854	—	854	—	—	—	—
Total Inactive	\$ 6,428	\$ 969	\$ 7,397	\$ 3,314	\$ 39	\$ 3,353	\$ 230
Sub-Total	\$ 11,227	\$ 5,706	\$ 16,933	\$ 4,136	\$ 1,295	\$ 5,431	\$ 417
Gain-sharing	38	—	38	—	—	—	—
Valuation Total	\$ 11,265	\$ 5,706	\$ 16,971	\$ 4,136	\$ 1,295	\$ 5,431	\$ 417
Laws of 2000	—	313	313	—	113	113	—
1999 Total	\$ 11,265	\$ 6,019	\$ 17,284	\$ 4,136	\$ 1,408	\$ 5,544	\$ 417
1998 Total	\$ 10,724	\$ 4,972	\$ 15,696	\$ 3,917	\$ 1,109	\$ 5,027	\$ 392

Note: Totals may not agree due to rounding.

Actuarial Present Value of Credited Projected Liability - Continued

(Dollars in millions)	TRS		
	<i>Plan 1</i>	<i>Plan 2/3</i>	<i>Total</i>
ACTIVE MEMBERS:			
Retirement	\$ 3,984	\$ 1,108	\$ 5,093
Vesting	44	67	111
Death Annuity	29	18	47
Disability	21	9	30
Uniform COLA	317	—	317
Return of Contributions:			
Termination	7	9	16
Death	27	8	35
Total Active	\$ 4,430	\$ 1,219	\$ 5,649
INACTIVE MEMBERS:			
Terminated	\$ 191	\$ 109	\$ 300
Service Retirement	3,784	43	3,826
Disability	90	3	92
Survivor	155	1	157
Uniform COLA	678	—	678
Total Inactive	\$ 4,897	\$ 156	\$ 5,053
Sub-Total	\$ 9,327	\$ 1,375	\$ 10,702
Gain-sharing	32	78	110
Valuation Total	\$ 9,359	\$ 1,453	\$ 10,812
Laws of 2000	—	94	94
1999 Grand Total	\$ 9,359	\$ 1,547	\$ 10,906
1998 Grand Total	\$ 9,053	\$ 1,390	\$ 10,444

Note: Totals may not agree due to rounding.

Development of Funding Ratio

(Dollars in millions)							
	PERS		TRS		LEOFF		WSP
	Plan 1	Plan 2	Plan 1	Plan 2/3	Plan 1	Plan 2	
Credited Projected Liability	\$ 11,265	\$ 6,019	\$ 9,359	\$ 1,547	\$ 4,136	\$ 1,408	\$ 417
Valuation Assets	10,456	11,371	8,696	2,908	5,150	2,163	622
Unfunded Liability	\$ 809	\$ (5,352)	\$ 663	\$ (1,361)	\$ (1,014)	\$ (755)	\$ (246)
Funding Ratio:							
1999	93%	189%	93%	188%	125%	154%	159%
1998	86%	191%	86%	185%	117%	160%	147%
1997*	83%	187%	82%	181%	108%	155%	140%
1996	73%	157%	70%	144%	89%	130%	128%
1995	68%	150%	65%	136%	80%	126%	119%
1994 *	67%	142%	65%	130%	68%	124%	110%
1993	70%	142%	62%	126%	68%	127%	110%
1992	67%	139%	59%	127%	65%	128%	108%
1991	67%	149%	59%	131%	66%	154%	106%
1990	66%	154%	60%	140%	65%	153%	105%
1989*	65%	162%	58%	144%	65%	158%	103%
1988	66%	165%	59%	143%	66%	153%	102%
1987	71%	175%	58%	135%	69%	157%	95%
1986	63%	162%	50%	125%	57%	142%	87%

Note: Totals may not agree due to rounding.

*Assumptions changed.

Section III

Demographic Changes in Membership

Demographic Changes in Membership

Summary of Demographic Changes

	1998			1999		
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total
PERS:						
<u>Active Members</u>	30,374	161,476	191,850	28,168	168,214	196,382
Total Salaries (millions)	\$ 1,233	\$ 5,131	\$ 6,364	\$ 1,184	\$ 5,546	\$ 6,730
Average Age	52.5	43.1	44.6	53.0	43.4	44.7
Average Service	19.7	7.2	9.2	20.1	7.4	9.2
Average Salary	\$ 40,601	\$ 31,778	\$ 33,175	\$ 42,045	\$ 32,971	\$ 34,272
<u>Terminated Members</u>						
Vested	3,252	10,981	14,233	3,295	12,838	16,133
"Non-Vested"	7,599	57,844	65,443	7,628	64,879	72,507
<u>Retirees</u> (including L&I disabled)						
All Retirees	51,948	5,685	57,633	52,515	6,765	59,280
Avg. Monthly Benefit, All Retirees	\$ 907	\$ 451	\$ 862	\$ 967	\$ 483	\$ 912
New "Service Retirees"	1,926	822	2,748	2,172	1,005	3,177
Avg. Monthly Benefit, New "Service Retirees"	\$ 1,705	\$ 586	\$ 1,595	\$ 1,820	\$ 614	\$ 1,682

Summary of Demographic Changes - Continued

	1998				1999			
	Plan 1	Plan 2	Plan 3	Total	Plan 1	Plan 2	Plan 3	Total
TRS:								
<u>Active Members</u>	20,165	9,058	32,605	61,828	18,737	8,663	35,284	62,684
Total Salaries (millions)	\$ 1,046	\$ 381	\$ 1,327	\$ 2,754	\$ 984	\$ 373	\$ 1,446	\$ 2,803
Average Age	52.2	45.0	39.5	44.4	52.8	46.1	39.8	44.6
Average Service	22.5	8.3	7.7	12.6	22.9	9.2	7.8	12.5
Average Salary	\$ 51,891	\$ 42,090	\$ 40,694	\$ 44,550	\$ 52,540	\$ 43,022	\$ 40,979	\$ 44,717
<u>Terminated Members</u>								
Vested	2,128	2,222	228	4,578	2,071	2,180	919	5,170
"Non-Vested"	1,011	6,008	0	7,019	989	5,701	0	6,690
<u>Temporarily Disabled</u>	11	0	0	11	14	0	0	14
<u>Retirees</u>								
All Retirees	28,141	312	10	28,463	28,920	398	50	29,368
Avg. Monthly Benefit, All Retirees	\$ 1,178	\$ 672	\$ 256	\$ 1,172	\$ 1,233	\$ 726	\$ 295	\$ 1,225
New "Service Retirees"	1,452	65	5	1,522	1,482	85	30	1,597
Avg. Monthly Benefit, New "Service Retirees"	\$ 1,777	\$ 784	\$ 305	\$ 1,766	\$ 1,796	\$ 857	\$ 355	\$ 1,781

Summary of Demographic Changes - *Continued*

	1998			1999		
	Plan 1	Plan 2	Total	Plan 1	Plan 2	Total
LEOFF:						
<u>Active Members</u>	1,986	11,870	13,856	1,743	12,713	14,456
Total Salaries (millions)	\$ 117	\$ 649	\$ 766	\$ 106	\$ 725	\$ 831
Average Age	50.6	37.5	39.4	51.2	37.8	39.4
Average Service	25.5	9.0	11.4	26.2	9.2	11.2
Average Salary	\$ 58,841	\$ 54,700	\$ 55,294	\$ 60,683	\$ 57,031	\$ 57,471
<u>Terminated Members</u>						
Vested	61	220	281	40	216	256
"Non-Vested"	96	826	922	93	875	968
<u>Retirees</u>						
All Retirees	7,434	80	7,514	7,623	100	7,723
Avg. Monthly Benefit, All Retirees	\$ 2,343	\$ 714	\$ 2,326	\$ 2,420	\$ 791	\$ 2,399
New "Service and Disability Retirees"	312	12	324	263	23	286
Avg. Monthly Benefit, New "Service and Disability Retirees"	\$ 2,740	\$ 1,019	\$ 2,722	\$ 2,879	\$ 982	\$ 2,854

Summary of Demographic Changes - *Continued*

	1998	1999
	<u>Total</u>	<u>Total</u>
WSP:		
<u>Active Members</u>	929	968
Total Salaries (millions)	\$ 51.0	\$ 56
Average Age	38.6	38.4
Average Service	13.0	12.5
Average Salary	\$ 54,842	\$ 57,496
<u>Terminated Members</u>		
Vested	14	15
"Non-Vested"	7	9
<u>Disabled Members*</u>	68	67
<u>Retirees</u>		
All Retirees	612	647
Average Monthly Benefit, All Retirees	\$ 2,328	\$ 2,405
New "Service Retirees"	33	35
Average Monthly Benefit, New "Service Retirees"	\$ 3,187	\$ 3,124

**Benefits provided outside of pension funds.*

Section IV

System Assets

Section IV -

System Assets

Valuation assets are at market value with gains/losses recognized over a three-year period. In the valuation year, 50 percent of the gain/loss is recognized. In the following two years, 30 percent and 20 percent are recognized.

The gain or loss is calculated on assets held by the State Investment Board.

Valuation Assets

(Dollars in Millions)	PERS			TRS			LEOFF			WSP
	Plan 1	Plan 2	Total	Plan 1	Plan 2/3	Total	Plan 1	Plan 2	Total	
1999 Market Value	\$ 11,082	\$ 12,036	\$ 23,119	\$ 9,002	\$ 3,006	\$ 12,008	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702
Deferred 1999 Gain (50%)	515	554	1,069	177	60	236	254	105	359	33
Deferred 1998 Gain (20%)	112	111	223	129	38	167	56	21	76	7
1999 Valuation Assets	\$ 10,456	\$ 11,371	\$ 21,827	\$ 8,696	\$ 2,908	\$ 11,604	\$ 5,150	\$ 2,163	\$ 7,313	\$ 662
1999 Gain										
Actual Return	\$ 1,743	\$ 1,861	\$ 3,604	\$ 963	\$ 322	\$ 1,285	\$ 861	\$ 351	\$ 1,212	\$ 110
Expected Return	712	753	1,465	609	203	812	353	141	494	45
Gain	\$ 1,031	\$ 1,108	\$ 2,139	\$ 353	\$ 119	\$ 473	\$ 509	\$ 209	\$ 718	\$ 65
1998 Gain										
Actual Return	\$ 1,201	\$ 1,192	\$ 2,392	\$ 1,183	\$ 396	\$ 1,579	\$ 597	\$ 220	\$ 817	\$ 74
Expected Return	642	636	1,278	538	204	742	319	117	437	40
Gain	\$ 558	\$ 556	\$ 1,114	\$ 645	\$ 192	\$ 837	\$ 278	\$ 103	\$ 380	\$ 35

Note: Totals may not agree due to rounding.

Market Value of Total System Assets

(Dollars in millions)	PERS			TRS			LEOFF			WSP
	Plan 1 Fund 631	Plan 2 Fund 641	Total	Plan 1 Fund 632	Plan 2/3 Fund 642	Total	Plan 1 Fund 819	Plan 2 Fund 829	Total	Fund 615
Assets:										
Cash & Short-Term	\$ 133	\$ 147	\$ 280	\$ 224	\$ 104	\$ 328	\$ 65	\$ 33	\$ 98	\$ 8
Fixed Income:										
Managed/Passive	2,661	2,887	5,548	2,289	922	3,210	1,312	547	1,859	169
Equities:										
Commingled Funds	5,702	6,186	11,888	4,750	1,913	6,663	2,811	1,172	3,983	361
Corporate Stocks	982	1,066	2,048	553	223	776	484	202	686	62
Venture Capital	492	534	1,026	357	144	501	243	101	344	31
Real Estate	646	700	1,346	424	171	595	318	133	451	41
Leveraged Buy-outs	414	449	863	388	156	545	204	85	289	26
<i>Total Invested Assets</i>	<i>\$ 11,030</i>	<i>\$ 11,969</i>	<i>\$ 22,999</i>	<i>\$ 8,986</i>	<i>\$ 3,632</i>	<i>\$ 12,618</i>	<i>\$ 5,437</i>	<i>\$ 2,273</i>	<i>\$ 7,710</i>	<i>\$ 699</i>
Assets Receivable										
Non-Current	—	—	—	0	682	682	—	—	—	—
Collateral	—	—	—	333	134	467	—	—	—	—
Accrued Interest Receivable (to SIB)	43	47	91	90	36	126	21	9	30	3
Contributions Receivable (to DRS)	13	23	36	16	19	36	1	6	8	0
Gross DB & DC Assets	\$ 11,087	\$ 12,039	\$ 23,126	\$ 9,425	\$ 4,504	\$ 13,928	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702
DC Assets	—	—	—	—	1,364	1,364	—	—	—	—
1999 Gross DB Assets	\$ 11,087	\$ 12,039	\$ 23,126	\$ 9,425	\$ 3,140	\$ 12,565	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702
Liabilities:										
Expense Fund	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Account Payable	4	3	7	423	134	557	0	0	0	0
<i>Total Liability</i>	<i>\$ 4</i>	<i>\$ 3</i>	<i>\$ 7</i>	<i>\$ 423</i>	<i>\$ 134</i>	<i>\$ 557</i>	<i>\$ 0</i>	<i>\$ 0</i>	<i>\$ 0</i>	<i>\$ 0</i>
Net DB Assets Available for Benefits:										
Employee Accounts	1,708	2,616	4,324	1,464	317	1,781	168	582	750	50
Other	9,374	9,420	18,794	7,538	2,689	10,227	5,291	1,706	6,997	652
Net DB Assets	\$ 11,082	\$ 12,036	\$ 23,119	\$ 9,002	\$ 3,006	\$ 12,008	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702
1999 Gross DB Assets	\$ 11,087	\$ 12,039	\$ 23,126	\$ 9,425	\$ 3,140	\$ 12,565	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702
1998 Gross DB Assets	\$ 9,647	\$ 9,922	\$ 19,568	\$ 8,746	\$ 2,870	\$ 11,616	\$ 4,780	\$ 1,848	\$ 6,628	\$ 602
Note: Totals may not agree due to rounding.										

Section V

Financial Activity

Section V -

Financial Activity**Summary of Financial Activity**

(Dollars in Millions)						
	PERS			TRS		
	<i>Plan 1 Fund 631</i>	<i>Plan 2 Fund 641</i>	<i>Total</i>	<i>Plan 1 Fund 632</i>	<i>Plan 2/3 Fund 642</i>	<i>Total</i>
Beginning Fund Value	\$ 9,646	\$ 9,920	\$ 19,566	\$ 8,292	\$ 2,722	\$ 11,014
Adjustment	—	—	—	—	—	—
Adjusted Fund Value	\$ 9,646	\$ 9,920	\$ 19,566	\$ 8,292	\$ 2,722	\$ 11,014
Revenue						
Contributions						
Employee*	\$ 74	\$ 173	\$ 247	\$ 59	\$ 22	\$ 81
Employer	221	173	394	223	100	323
<i>Total Contributions</i>	\$ 295	\$ 347	\$ 641	\$ 282	\$ 122	\$ 404
Investment Return	\$ 1,736	\$ 1,860	\$ 3,597	\$ 962	\$ 322	\$ 1,284
Restorations	3	2	5	2	0	2
Transfers In	1	1	2	0	1	1
Miscellaneous	0	0	0	4	2	6
<i>Total Revenue</i>	\$ 2,035	\$ 2,209	\$ 4,244	\$ 1,250	\$ 448	\$ 1,698
Disbursements						
Withdrawn Annuities/ Miscellaneous	—	—	—	\$ 100	\$ 0	\$ 100
Monthly Benefits	589	37	626	433	4	436
Refunds	9	56	64	3	6	8
<i>Total Benefits</i>	\$ 598	\$ 92	\$ 690	\$ 536	\$ 9	\$ 545
Transfers Out	\$ 0	\$ 1	\$ 1	\$ 0	\$ 153	\$ 153
Expenses	1	0	1	5	2	7
<i>Total Disbursements</i>	\$ 599	\$ 93	\$ 692	\$ 541	\$ 164	\$ 704
Ending Fund Value	\$ 11,082	\$ 12,036	\$ 23,119	\$ 9,002	\$ 3,006	\$ 12,008

Note: Totals may not agree due to rounding.

*Does not include TRS 3 Contributions

The "Ending Fund Value" corresponds to "Net DB assets available for benefits" in System Assets.

Summary of Financial Activity

(Dollars in Millions)				
	LEOFF			WSP
	<i>Plan 1</i>	<i>Plan 2</i>		<i>Fund</i>
	<i>Fund 819</i>	<i>Fund 829</i>	<i>Total</i>	<i>615</i>
Beginning Fund Value	\$ 4,780	\$ 1,848	\$ 6,628	\$ 602
Adjustment	—	—	—	—
Adjusted Fund Value	\$ 4,780	\$ 1,848	\$ 6,628	\$ 602
Revenue:				
Contributions				
Employee	\$ 7	\$ 50	\$ 57	\$ 4
Employer/State	32	50	82	3
Total Contributions	\$ 38	\$ 100	\$ 139	\$ 7
Investment Return	\$ 860	\$ 351	\$ 1,211	\$ 110
Restorations	0	0	0	0
Transfers In	0	0	0	1
Miscellaneous	0	0	0	0
Total Revenue	\$ 899	\$ 451	\$ 1,350	\$ 117
Disbursements				
Monthly Benefits	\$ 217	\$ 1	\$ 218	\$ 18
Refunds	0	10	10	0
Total Benefits	\$ 217	\$ 11	\$ 228	\$ 18
Transfers Out	\$ 2	\$ 0	\$ 2	\$ 0
Expenses	0	0	0	0
Total Disbursements	\$ 219	\$ 11	\$ 231	\$ 18
Ending Fund Value	\$ 5,460	\$ 2,288	\$ 7,748	\$ 702

Note: Totals may not agree due to rounding.

The "Ending Fund Value" corresponds to "Net DB assets available for benefits" in System Assets.

Section VI

Actuarial Assumptions and Experience

Actuarial Assumptions and Experience

Economic Assumptions

Growth in Membership

It is assumed that the number of active members in each system will increase according to the rates shown below:

<u>PERS</u>	<u>TRS</u>	<u>LEOFF</u>	<u>WSP</u>
1.25%	.90%	1.25%	1.25%

Future Salaries

General (inflation) salary increases of 4% apply to all members. This excludes longevity, merit or step increases that usually apply to members in the early part of their careers.

Post-retirement Increases

WSP: A simple 2% as described in the plan provisions.

PERS Plan 1, TRS Plan 1: A uniform COLA as described in the plan provisions.

LEOFF Plan 1: Assumes 3.50% increases. (This rate is equal to assumed 3.50% increases in the Average CPI Seattle, Washington, Urban Wage Earners and Clerical Workers, all items).

PERS Plan 2, TRS Plan 2/3 and LEOFF Plan 2: Assumes 3.00% increases. (This rate is the maximum allowed under the plan provisions, given the higher assumed 3.50% increases in the Average CPI Seattle, Washington, Urban Wage Earners and Clerical Workers, all items).

Interest on Member Contributions

All systems: Interest on member contributions is assumed to accrue at an annual rate of 5.5 percent, compounded quarterly.

Return on Investment Earnings

All systems: The future investment earnings on the assets of the systems are assumed to accrue at an annual rate of 7.5 percent, compounded annually.

Valuation of Assets

All systems: Valuation assets are at market value with gains/losses recognized over a three-year period. In the valuation year, 50 percent of the gain/loss is recognized. In the following two years, 30 percent and 20 percent are recognized. This results in a deferral of 50 percent of gain/losses in the current year and a 20 percent deferral of the previous year's gains/losses. The gain or loss is calculated on assets held by the State Investment Board.

The gain/loss is calculated as actual earnings in excess of earnings based on an annual rate of 7.5 percent compounded annually.

Administrative Expenses

All systems: The administrative expenses of these systems are paid primarily by the employers. This cost will be added to the contribution rates derived within this report. No allowance is made for future expenses in the actuarial determinations set out in this report.

Demographic Assumptions

Probability of Service Retirement:

PERS				
Age	Plan 1		Plan 2	
	Male	Female	Male	Female
50	60%	32%	---	---
51	60%	32%	---	---
52	48%	32%	---	---
53	48%	32%	---	---
54	48%	43%	---	---
55	33%	33%	2%	5%
56	25%	28%	2%	5%
57	25%	28%	3%	6%
58	25%	28%	3%	6%
59	39%	60%	3%	8%
60	19%	25%	4%	10%
61	26%	19%	6%	10%
62	45%	35%	46%	62%
63	31%	23%	30%	26%
64	38%	33%	40%	40%
65	55%	51%	64%	64%
66-69	33%	31%	50%	40%
70+	*	*	*	*

**Immediate retirement is assumed for every person who attains age 70.*

Probability of Service Retirement Continued:

TRS						
Age	Plan 1				Plan 2/3	
	Service Less Than or More Than 30 Years		Service Equal to 30 Years		All Service	
	Male	Female	Male	Female	Male	Female
-53	20%	25%	40%	30%	---	---
54	25%	20%	40%	30%	---	---
55	25%	20%	40%	30%	2%	5%
56	20%	25%	35%	30%	2%	5%
57	20%	25%	35%	30%	3%	6%
58	20%	25%	40%	30%	3%	6%
59	25%	25%	45%	30%	3%	8%
60	25%	20%	45%	30%	4%	10%
61	25%	20%	60%	35%	6%	10%
62	40%	35%	60%	55%	45%	60%
63	35%	30%	60%	50%	30%	25%
64	35%	30%	60%	50%	40%	40%
65	60%	50%	90%	90%	67%	70%
66-69	30%	30%	90%	90%	50%	40%
70+	*	*	*	*	*	*

**Immediate retirement is assumed for every person who attains age 70.*

Probability of Service Retirement Continued:

LEOFF		
Age	Plan 1	Plan 2
50	14%	2%
51	5%	2%
52	10%	2%
53	15%	5%
54	15%	18%
55	15%	86%
56	10%	30%
57	10%	30%
58	10%	35%
59	20%	35%
60	20%	35%
61	40%	35%
62	40%	35%
63	25%	35%
64	25%	35%
65+	*	*

WSP	
Age	Probability
40-50	45%
51-55	40%
56-59	35%
60 +	*

**In LEOFF, immediate retirement is assumed for every person who attains age 65. In WSP, immediate retirement is assumed for every person who attains age 60.*

Mortality

In 1995 the Society of Actuaries released the Uninsured Pensioners' Mortality Table (UP94). With adjustments, this table is applicable for large pension plans.

To account for the experience of particular groups of employees, an age setback or setforward was applied to the UP94 table. For example, with a three-year setback, a 50-year-old is assumed to have the mortality of a 47-year-old. With a three-year setforward, a 50-year-old is assumed to have the mortality of a 53-year-old.

Service Retirees:

- ✓ TRS uses an age setback of three years for men and one year for women.
- ✓ PERS uses the UP94 table with no adjustments.
- ✓ LEOFF and WSP use an age setforward of one year.

Disability Retirees:

- ✓ PERS uses a two-year setforward with a minimum rate of 5.75 percent for males and 3.25 percent for females.
- ✓ TRS uses the greater of the table for active members or 2.5 percent for males and 2.0 percent for females.
- ✓ LEOFF uses a setforward of two years with a minimum rate of 0.5 percent.
- ✓ WSP disability retirees are not paid from retirement system funds.

Uninsured Pensioners' Mortality Table (UP94):

All Systems		
Age	Actives, Retirees and Beneficiaries	
	Male	Female
20	.0545%	.0305%
25	.0711%	.0313%
30	.0862%	.0377%
35	.0915%	.0514%
40	.1153%	.0763%
45	.1697%	.1046%
50	.2773%	.1536%
55	.4758%	.2466%
60	.8576%	.4773%
65	1.5629%	.9286%
70	2.5516%	1.4763%
75	4.0012%	2.4393%
80	6.6696%	4.2361%
85	10.4559%	7.2836%
90	16.4442%	12.5016%
95	25.1189%	20.0229%

Probability of Disablement:

PERS				
Age	Plan 1		Plan 2	
	Male	Female	Male	Female
20	.0011%	.0011%	.0191%	.0151%
25	.0041%	.0042%	.0191%	.0151%
30	.0123%	.0126%	.0191%	.0151%
35	.0310%	.0319%	.0284%	.0217%
40	.0690%	.0710%	.0571%	.0475%
45	.1399%	.1438%	.1285%	.1105%
50	.2631%	.2704%	.4614%	.2441%
55	.4655%	.4787%	.8908%	.6906%
60*	.3095%	.3095%	.6479%	.5485%
64	0	0	1.0940%	1.0940%

**No Plan 1 disabilities are assumed for members beyond 60 years of age.*

Probability of Disablement Continued:

TRS Plan 1, 2 and 3	
Age	Probability
20	.0010%
25	.0068%
30	.0140%
35	.0240%
40	.0320%
45	.0705%
50	.1220%
55	.2500%
60 *	.3500%
64	.5387%

LEOFF		
Age	Plan 1	Plan 2
20	.10%	.01%
25	.10%	.01%
30	.80%	.01%
35	1.49%	.02%
40	2.18%	.04%
45	3.93%	.07%
50	6.82%	.25%
55	9.62%	n/a
58+	11.32%	n/a

**No TRS Plan 1 disabilities are assumed for members beyond 60 years of age.*

LEOFF Plan 1 disability retirements are assumed to continue after service retirement begins.

WSP Probability of Disablement

At all ages, the probability of disablement is .2 percent.

Probability of Termination in the Next Year:

PERS Plan 1 and Plan 2		
Years of Service	Male	Female
0	22.62%	18.18%
1	14.60%	13.95%
2	9.75%	11.32%
3	6.30%	7.69%
4	5.12%	6.76%
5	4.40%	5.83%
6	4.16%	4.88%
7	3.68%	4.64%
8	3.54%	4.54%
9	3.39%	4.40%
10	3.20%	3.92%
11	2.96%	3.68%
12	2.47%	3.20%
13	2.22%	2.96%
14	1.98%	2.22%
15	1.73%	2.22%
16	1.24%	1.98%
17	0.90%	1.73%
18	0.80%	1.64%
19	0.70%	1.29%
20	0.60%	1.14%
21	0.50%	1.00%
22	0.40%	0.75%
23	0.30%	0.55%
24	0.25%	0.50%
25 +	0.25%	0.40%

TRS Plan 1, 2 and 3		
Years of Service	Male	Female
0	7.50%	7.00%
1	7.50%	7.00%
2	6.00%	6.00%
3	5.10%	5.30%
4	4.50%	4.80%
5	3.90%	4.20%
6	3.40%	3.90%
7	2.90%	3.40%
8	2.50%	3.00%
9	2.10%	2.50%
10	1.90%	2.20%
11	1.80%	2.00%
12	1.60%	1.65%
13	1.40%	1.49%
14	1.24%	1.31%
15	1.10%	1.20%
16	1.00%	1.10%
17	.90%	1.01%
18	.80%	.95%
19	.70%	.90%
20	.65%	.82%
21	.60%	.78%
22	.60%	.71%
23	.60%	.69%
24	.60%	.65%
25 +	.60%	.62%

Probability of Termination in the Next Year Continued:

LEOFF Plan 1 and Plan 2	
Years of Service	Probability
0	10.43%
1	4.88%
2	2.47%
3	2.27%
4	1.98%
5	1.88%
6	1.78%
7	1.69%
8	1.59%
9	1.49%
10	1.39%
11	1.29%
12	1.00%
13	.70%
14	.50%
15+	.30%

WSP	
Age	Probability
20	2.66%
21	2.47%
22	2.27%
23	2.08%
24	1.88%
25	1.69%
26	1.49%
27	1.29%
28	1.09%
29	1.09%
30	1.00%
31	1.00%
32	1.00%
33	.90%
34	.90%
35	.90%
36	.80%
37	.80%
38	.80%
39	.80%
40	.70%
41	.70%
42	.70%
43+	.60%

Step Salary Increases:

The following tables only include step increases. They do not include general salary increases. The percent increase relates to the two prior years.

PERS Plan 1 and Plan 2		
Years of Service	Percent Increases	Multiple of Entry Salary
1	4.7%	1.047
2	3.8%	1.087
3	3.0%	1.119
4	2.5%	1.147
5	1.9%	1.169
6	1.4%	1.186
7	1.0%	1.197
8	.7%	1.206
9	.5%	1.212
10	.5%	1.218
11	.4%	1.223
12	.4%	1.228
13	.3%	1.231
14	.2%	1.234
15	.2%	1.236
16	.2%	1.239
17 +	0%	1.239

TRS Plan 1, 2 and 3		
Years of Service	Percent Increase	Multiple of Entry Salary
1	5.0%	1.050
2	4.5%	1.097
3	4.2%	1.143
4	3.8%	1.187
5	3.6%	1.230
6	3.5%	1.273
7	3.3%	1.315
8	3.2%	1.357
9	3.1%	1.399
10	3.0%	1.441
11	3.0%	1.484
12	3.0%	1.528
13	3.0%	1.574
14	2.5%	1.614
15	1.5%	1.638
16+	.5%	—

Step Salary Increases Continued:

LEOFF Plan 1 and Plan 2		
Years of Service	Percent Increases	Multiple of Entry Salary
1	9.0%	1.090
2	7.0%	1.166
3	5.0%	1.225
4	4.0%	1.274
5	2.5%	1.305
6	2.0%	1.332
7	1.5%	1.352
8	1.4%	1.370
9	1.3%	1.388
10	1.2%	1.405
11	1.1%	1.420
12	1.0%	1.435
13	1.0%	1.449
14	.9%	1.462
15	.8%	1.474
16	.7%	1.484
17	.6%	1.493
18+	.5%	—

WSP		
Years of Service	Percent Increase	Multiple of Entry Salary
1	6.0%	1.06
2	6.0%	1.12
3	5.0%	1.18
4	5.0%	1.24
5	4.5%	1.29
6	3.0%	1.33
7+	0.0%	—

Final Average Salary

Salary is averaged over the period set out in the plan provisions. In addition, PERS Plan 1 is loaded by 6%, and TRS Plan 1 is loaded by 2% for the retirement cash out of sick leave/ vacation.

Other Assumptions

Other assumptions include the recognition of service earned in another plan (portability), the probability of a Vested Terminated Member not withdrawing from the plan, and the probability of being married. More details of these and other assumptions can be found in the last experience study (1989 to 1994).

Economic Experience

	PERS		TRS		LEOFF		WSP
	Plan 1	Plan 2	Plan 1	Plan 2/3	Plan 1	Plan 2	
Investment Return on Valuation Assets							
Actual	16.9%	16.7%	14.7%	14.9%	17.0%	16.6%	16.9%
Expected	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Salary Increases							
Actual*	3.7%		1.1%		3.9%		7.2%
Expected	4.0%		4.0%		4.0%		4.0%
Interest on Members Contributions¹							
Actual	5.5%		5.5%		5.5%		5.5%
Expected	5.5%		5.5%		5.5%		5.5%
Membership Growth							
Actual*	2.36%		1.38%		4.33%		4.20%
Expected	1.25%		0.90%		1.25%		1.25%
Inflation²							
Actual	NA	2.63%	NA	2.63%	2.63%	2.63%	NA
Expected	NA	3.50%	NA	3.50%	3.50%	3.50%	NA
Post-Retirement Increases³							
Actual	Uniform COLA	2.63% - 3.00%	Uniform COLA	2.63% - 3.00%	2.63%	2.63% - 3.00%	2.00%
Expected	Uniform COLA	3.00%	Uniform COLA	3.00%	3.50%	3.00%	2.00%

¹ Interest paid on members contributions is determined by the Director of Retirement Systems. Interest is compounded quarterly.

² Urban Wage Earners and Clerical Workers, Seattle WA, All Items, Series A.

The increase from 1997 to 1998 was 2.63%, and is used in the 1999 post-retirement increase calculations.

³ The PERS Plan 1 and TRS Plan 1 uniform COLA increase amount on July 1, 1999 was 77 cents per month for each year of service, and the gain-sharing amount on January 1, 2000 was 28 cents, both calculated in accordance with statute.

The WSP increase is a "simple" 2% as prescribed in statute.

The LEOFF Plan 1 increase is granted on April 1st at the prescribed inflation rate, which was 2.63% for 1999.

The PERS Plan 2, TRS Plan 2/3 and LEOFF Plan 2 increase is the prescribed inflation rate, subject to a 60% safety net and a maximum increase of 3% over the year. The increases granted on July 1, 1999 ranged from 2.63% to the maximum 3%.

* The actual rate is for all the plans in the system.

Demographic Experience

Ratio of Actual Experience to Expected							
	PERS		TRS		LEOFF		WSP
	Plan 1	Plan 2	Plan 1	Plan 2/3	Plan 1	Plan 2	
Service Retiree Mortality*	99%		101%		87%		130%
Service Retirement Termination	93%	75%	104%	68%	107%	20%	67%
	139%	142%	138%	151%	167%	117%	129%

* The ratio is for all the plans in the system.

Actuarial Gain and Loss

Change in Employer and State Contribution Rate By Source				
	PERS	TRS	LEOFF	WSP
1998 Contribution Rate	3.49 %	5.81 %	2.14 %	*** (4.06) %
Change in Normal Costs				
1998 Normal Cost	1.49 %	2.14 %	2.14 %	12.85 %
2000 Legislation	0.94 %	1.26 %	0.57 %	0.00 %
Adjusted 1998 Normal Cost	2.43 %	3.40 %	2.71 %	12.85 %
Economics:				
Assets	(0.87) %	(0.82) %	(0.40) %	0.00 %
Salaries	(0.03) %	(0.37) %	0.00 %	0.00 %
Growth	0.47 %	0.42 %	0.13 %	0.00 %
<i>Total</i>	(0.42) %	(0.77) %	(0.28) %	0.00 %
Demographics:				
Termination/Return to Work	0.05 %	0.07 %	0.01 %	0.00 %
Retirement	0.00 %	0.00 %	0.00 %	0.00 %
<i>Total</i>	0.05 %	0.07 %	0.01 %	0.00 %
Other:	(0.36) %	(0.11) %	(0.13) %	0.15 %
1999 Normal Cost	1.70 %	2.59 %	*2.31 %	12.70 %
Change in UAAL Rate				
1998 UAAL Rate	2.00 %	3.67 %	(4.41) %	(16.91) %
2000 Legislation	0.01 %	0.03 %	0.32 %	0.00 %
Adjusted 1998 UAAL Rate	2.01 %	3.70 %	(4.09) %	(16.91) %
Economics:				
Assets	(0.76) %	(1.23) %	(2.82) %	(5.41) %
Salaries	(0.01) %	(0.41) %	0.00 %	0.61 %
Growth	(0.01) %	0.04 %	0.17 %	0.76 %
Inflation (CPI)	n/a	n/a	(0.08) %	n/a
<i>Total</i>	(0.78) %	(1.60) %	(2.73) %	(4.04) %
Demographics:				
Termination/Return to Work	0.05 %	0.04 %	(0.01) %	0.00 %
Retirement	0.00 %	0.00 %	0.00 %	(0.02) %
<i>Total</i>	0.05 %	0.04 %	(0.01) %	(0.02) %
Other:	0.22 %	0.65 %	0.90 %	0.00 %
1999 UAAL Rate	1.51 %	2.79 %	** (5.91) %	(20.98) %
1999 Contribution Rate	3.21 %	5.38 %	2.31 %	*** (8.28) %

*We have only shown State's NC for LEOFF Plan 2 (20% of the total NC). We have not shown the Employers NC for LEOFF 2 (30% of the total NC).
The State's NC for LEOFF Plan 1 is zero as there is no unfunded liability.

**The LEOFF UAAL rate is negative, so the rate is set to zero.

***WSP contribution rate is negative, so the rate is set to zero.

Section VII

Provisions of the Systems

Provisions of the Systems

Summary of the Provisions of the Washington Retirement Systems

All actuarial calculations in this report are based upon the following provisions of the individual retirement systems which include the Laws of 2000.

- ✓ Public Employees Retirement System, Chapter 41.40 41.31, 41.31A RCW;
- ✓ Teachers Retirement System, Chapter 41.32 41.31, 41.31A RCW;
- ✓ Law Enforcement Officers and Fire Fighters Retirement System, Chapter 41.26 RCW; and
- ✓ Washington State Patrol Retirement System, Chapter 43.43 RCW.

The benefit and contribution provisions of these laws are summarized briefly for reference purposes. This summary encompasses the major provisions of the law. It does not attempt to cover all of the detailed provisions. In addition to the benefit provisions specific to each system, PERS, TRS and LEOFF are also subject to portability provisions of Chapter 41.54 RCW and funding provisions of Chapter 41.45 RCW.

Plan Effective Dates:

	PERS		TRS			LEOFF		WSP
	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 3</i>	<i>Plan 1</i>	<i>Plan 2</i>	
Retirement	1947	1977	1938	1977	1996	1970	1977	1947
Termination	1977	--	1977	1996	--	1977	--	--

Contribution Rates:

Plan 1 and WSP

The PERS 1 and TRS 1 member contribution rate is six percent. The LEOFF 1 member and employer rate is 6 percent if there is an unfunded liability and zero if there is a surplus. The WSP member rate is 7 percent, except for the period from July 1, 2000 to June 30, 2001 where it is zero. Employers and the state absorb all increases in rates.

Plan 2

The member contribution rate is half of the amount necessary to fund the Plan. Employers and the state pay the other half.

PERS 2 and TRS 2 members contribution rates are not affected by gain-sharing as these costs are borne by the Employers.

Plan 3

Employees do not contribute to the defined benefit plan. Employers pay the full contribution rate.

Retirement Eligibility:

	PERS		TRS			LEOFF		WSP
	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 3</i>	<i>Plan 1</i>	<i>Plan 2</i>	
Normal Retirement	60 & 5 55 & 25 30 yrs	65 & 5	60 & 5 55 & 25 30 yrs	65 & 5	65 & 10 65 & 5*	50 & 5	53 & 5	55 & 5 25 yrs
Early Retirement	n/a	55 & 20	n/a	55 & 20	55 & 10	n/a	50 & 20	n/a

**If one year is after age 54, or five years were earned under Plan 2 by July 1, 1996.*

Service Retirement Benefit Formula:

Plan 1

Benefit is 2% x salary x years of service. A graded scale applies to LEOFF 1 members with less than 20 years of service. Plan 1 benefits are capped at 60% of salary, WSP benefits are capped at 75% of salary. Salary is averaged over one year for LEOFF 1, and over two years for PERS 1, TRS 1 and WSP.

Plan 2

Benefit is 2% x salary x years of service. Salary is averaged over five years.

Plan 3

Benefit is 1% x salary x years of service. Salary is averaged over five years.

Vesting

Members are entitled to a retirement benefit after five years of service. Members who leave service and do not withdraw their accumulated contributions are eligible for a continuing benefit upon reaching normal retirement age.

Plan 3 vesting is five or ten years as described above under retirement eligibility.

Post-Retirement Adjustments:

Adjustment Type	PERS		TRS		LEOFF		WSP
	<i>Plan 1</i>	<i>Plan 2</i>	<i>Plan 1</i>	<i>Plan 2/3</i>	<i>Plan 1</i>	<i>Plan 2</i>	
	Uniform COLA	CPI up to 3.0%	Uniform COLA	CPI up to 3.0%	Full CPI	CPI up to 3.0%	
							2.0%

The Uniform COLA for PERS 1 and TRS 1 is payable to members age 66 or older who have been retired at least one year. An annual increase is granted each July 1 to eligible members. The initial annual increase amount on July 1, 1995 was 59 cents per month per year of service. The annual increase amount is calculated as the previous annual increase amount plus any gain-sharing increase amount in the year, all increased by three percent. The annual increase amount was 77 cents on July 1, 1999. A gain-sharing increase amount of 28 cents was paid on January 1, 2000. Those two amounts plus 3% produces an annual increase amount of 108 cents on July 1, 2000. Gain-sharing is described below.

Effective July 1, 1999 the surviving spouse in WSP is eligible for the Uniform COLA benefit of 77 cents increasing by 3% each year.

Minimum Benefit

The minimum benefit for PERS 1 and TRS 1 on July 1, 1995 was \$24.22 per month per year of service. Beginning July 1, 1996 the minimum benefit is increased by the Uniform COLA increase amount. The minimum benefit was \$26.97 on July 1, 1999.

The minimum benefit for WSP on July 1, 1997 was \$20.00 per month per year of service. Beginning July 1, 1999, the minimum benefit will be increased by the Uniform COLA increase amount of 77 cents increasing by 3% each year. The minimum was increased to \$20.77 on July 1, 1999.

Withdrawal From Membership

Accumulated employee contributions plus interest are refunded upon withdrawal from membership. The current interest rate is 5.5 percent compounded quarterly.

Gain-sharing

Gain-sharing applies to PERS and TRS, and is the enhancement of benefits for Plan 1 and Plan 3. Gain-sharing applies if there is an extraordinary investment gain as set out in Chapter 41.31, 41.31A RCW (compound average annual return in excess of ten percent over a four year period).

The first gain-sharing was on July 1, 1998; thereafter, it occurs on January 1 of even-numbered years. Gain-sharing is given to Plan 1 as an additional Uniform COLA increase amount. Gain-sharing is given to Plan 3 as a transfer payment from the Plan 2 and Plan 3 defined benefit plan assets to the Plan 3 defined contribution plan. PERS 2 and TRS 2 members contribution rates are not affected by gain-sharing as these costs are borne by the Employers.

Laws of 2000

- PERS Plan 3 was enacted with an effective date of March 1, 2002. Employees will have the option of joining either Plan 2 or Plan 3. Current Plan 2 members have the option of transferring to Plan 3. Two windows are created for state and local government, beginning March 1, 2002 and September 1, 2002 respectively. Members who transfer during their designated windows and receive service credit for February 2003, get an additional transfer payment of 110% or 111% respectively, of the member's accumulated contributions on March 1, 2002.
- SERS Plan 3 additional transfer payment was increased from 65% to 130%.
- PERS Plan 2 and TRS Plans 2 and 3 have their early retirement benefits improved with the introduction of a 3% per year reduction for those who are at least age 55 and have 30 years of service.
- LEOFF Plan 2 has reduced the Normal Retirement Age from age 55 to age 53. Early retirement benefits were improved with the introduction of a 3% per year reduction for those who are age 50 and have 20 years of service. The disability benefit is reduced from age 55.
- Contribution rates were adopted in 2000 based on the 1998 actuarial valuations.
- LEOFF Plan 1 Member and Employer 6% contribution rates are set to zero when the plan is fully funded.
- WSP Member contribution rates are decreased from 7% to 3% for the one year period July 1, 2000 to June 30, 2001.